

In the claims:

1. (Currently Amended) A method of using a computer for processing customer interaction records within a customer interaction system including:

receiving an interaction record including interaction information describing a customer interaction wherein the interaction record contains a plurality of identified data items and a respective numerical value associated with each of the identified data items, the computer to perform the receiving;

identifying a cumulative record to which the interaction record contributes based upon a content of the interaction record, the computer to perform the identifying, the cumulative record containing a plurality of modifiable entries associated with different data types;

the computer determining how ~~a first~~ each entry of a plurality of entries of the cumulative record is to be modified by respective data items of the plurality of data items to reflect the interaction information within the interaction record based upon a data operation associated with ~~the first~~ each entry;

a thread pool with a plurality of threads processing each data item and respective numerical value of the plurality of identified data items of the interaction record in parallel; and

modifying respective entries of the cumulative record

in accordance with the data operation to reflect the interaction information contained within the interaction record, the computer to perform the modifying.

2. (Original) The method of claim 1 wherein the identification of the cumulative record is made utilizing time information included within the interaction information of the interaction record.

3. (Original) The method of claim 1 wherein the identification of the cumulative record is made utilizing data type information included within the interaction information of the interaction record.

4. (Original) The method of claim 1 wherein the identification of the cumulative record is made utilizing source information identifying a customer interaction system on which the customer interaction described by the interaction information occurred.

5. (Previously Presented) The method of claim 1 wherein the identification of the cumulative record includes providing a key, utilizing the interaction information, that is mapped to the cumulative record.

6. (Previously Presented) The method of claim 1 wherein the cumulative record is identified from among a plurality

of cumulative records based upon a content of the interaction record, each of the plurality of cumulative records comprising a row of a result set that includes a plurality of columns, and wherein at least a first column specifying the data operation that determines how a cumulative record, including the entry corresponding to the first column is modified to reflect interaction information contained within an interaction record.

7. (Previously Presented) The method of claim 1 wherein the interaction information included within the interaction record comprises a plurality of information items, and the modifying of the cumulative record comprises performing the data operation with respect to processed information items included within the cumulative record, the processed information items corresponding to at least one information item included within the interaction record.

8. (Previously Presented) The method of claim 7, wherein the cumulative record comprises a plurality of processed information items, each of the processed information items being assigned to a respective column within a result set constituting a plurality of cumulative records, each of the respective columns of the result set having a respective data operation associated therewith.

9. (Previously Presented) The method of claim 8 wherein the data operation associated with the respective column comprises any one of a group of operations including a sum operation, a count operation operation, a copy operation, and a replace operation.

10. (Original) The method of claim 1 wherein the cumulative record contains interaction information derived from a plurality of interaction records for a predetermined time period.

11. (Original) The method of claim 10 wherein the cumulative record is stored within a database as part of a summarization record of customer interactions over the predetermined time, the summarization record comprising a plurality of cumulative records.

12. (Previously Presented) The method of claim 1 wherein the interaction information includes any one of a group of information items comprising source, date, time, call segment, response time, wait time, queue time, hold time and talk time.

13. (Original) The method of claim 1 wherein the customer interaction system comprises any one of a group of systems including an automatic call distributor, an e-mail server,

a web server, a computer telephony integration server and an interactive voice response server.

14. (Currently Amended) A process that uses a computer for processing customer interaction records within a customer interaction system, of the process including:

a first process to receive an interaction record including interaction information describing a customer interaction, wherein the interaction record contains a plurality of identified data items and a respective numerical value associated with each of the data items and the first process operating to identify a cumulative record to which the ~~first~~ interaction record contributes based upon an information content of the ~~first~~ interaction record, wherein the cumulative record contains a plurality of modifiable entries each related to a different ~~data type~~ identified data item of the plurality of identified data items and at least a first entry of the cumulative record is associated with a data operation that determines how a second process modifies the first entry of the cumulative record to reflect the interaction information contained within the interaction record, the computer to perform the first process; and

a plurality of threads of the second process to modify the plurality of entries of the cumulative record in parallel and in accordance with the data operation to reflect the interaction information contained within the

first record, the computer to perform the second process.

15. (Original) The process of claim 14 wherein the first process identifies the cumulative record utilizing time information included within the interaction information of the interaction record.

16. (Original) The process of claim 14 wherein the first process identifies the cumulative record utilizing data type information included within the interaction information of the interaction record.

17. (Original) The process of the claim 14 wherein the first process identifies the cumulative record utilizing source information identifying a customer interaction system on which the customer interaction described by the interaction information occurred.

18. (Original) The process of claim 14 wherein the first process constructing a key, utilizing the interaction information, that is mapped to the cumulative record to identifying the cumulative record.

19. (Previously Presented) The process of claim 14 wherein the first process identifies the cumulative record from among a plurality of cumulative records, each of the plurality of cumulative records comprising a row of a

result set that includes a plurality of columns, and wherein at least a first column specifying the data operation that determines how the cumulative record, including the entry corresponding to the first column, is modified to reflect the interaction information contained within the interaction record.

20. (Previously Presented) The process of claim 14 wherein the interaction information included within the interaction record comprises a plurality of information items, and the second process modifies the cumulative record by performing the data operation with respect to processed information items included within the cumulative record, the processed information items corresponding to at least one information item included within the interaction record.

21. (Previously Presented) The process of claim 20, wherein the cumulative record comprises a plurality of processed information items, each of the processed information items being assigned to a respective column within a result set constituting a plurality of cumulative records, each of the respective columns of the result set having a respective data operation associated therewith that constitutes part of the second process.

22. (Previously Presented) The process of claim 21, wherein the data operation associated with a respective

column comprises any one of a group of the operations including a sum operation, a count operation, a copy operation, and a replace operation.

23. (Original) The process of claim 14 wherein the cumulative record contains interaction information derived from a plurality of records for a predetermined time period.

24. (Original) The process of claim 23 including a third process that stores the cumulative record within a database as part of a summarization record of customer interactions over the predetermined time, the summarization record comprising a plurality of cumulative records.

25. (Previously Presented) The process of claim 14 wherein the interaction information includes any one of a group of information items comprising source, date, time, call segment, response time, wait time, queue time, hold time and talk time.

26. (Original) The process of claim 14 wherein the customer interaction system comprises any one of a group of systems including an automatic call distributor, an e-mail server, a web server, a computer telephony integration server and an interactive voice response server.



27. (Currently Amended) A machine-readable medium that stores a sequence of instructions that, when executed by a machine, causes the machine to:

receive an interaction record including interaction information describing a customer interaction, wherein the interaction record contains a plurality of identified data items and a respective numerical value associated with each of the identified data items;

identify a cumulative record to which the first record contributes based upon an information content of the first record, the cumulative record containing a plurality of modifiable entries associated with different data types;

determining how ~~a first~~ each entry of a plurality of entries within the cumulative record is to be modified by respective data items of the plurality of identified data items to reflect the interaction information contained within the interaction record based upon a data operation associated with the ~~first~~ each entry;

a thread pool with a plurality of threads processing each data item and respective numerical value of the plurality of identified data items in parallel; and

modify respective entries of the cumulative record in accordance with the first data operation to reflect the interaction information contained within the information record.

28. (Currently Amended) A system for processing customer interaction records within a customer interaction system, of the system including:

a first means to receive an interaction record including interaction information describing a customer interaction, wherein the interaction record contains a plurality of identified data items and a respective numerical value associated with each of the identified data items and the first means operating to identify a cumulative record to which the ~~first~~ interaction record contributes wherein the cumulative record contains a plurality of modifiable entries each related to a different data ~~type~~ item of the plurality of data items and at least a first entry of the cumulative record is associated with a data operation that determines how a second process modifies the first entry of the cumulative record to reflect the interaction information contained within the interaction record; and

a plurality of threads of the second means to modify the plurality of entries of the cumulative record in parallel and in accordance with the data operation to reflect the interaction information contained within the interaction record.